

This Page Is Inserted by IFW Operations
and is not a part of the Official Record

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

IMAGES ARE BEST AVAILABLE COPY.

**As rescanning documents *will not* correct images,
please do not report the images to the
Image Problem Mailbox.**

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Canceled)
2. (Currently Amended) A method of treating a subterranean formation, said treatment selected among hydraulic fracturing, acid fracturing and comprising the step of injecting down a well an aqueous fluid comprising a thickening amount of a viscoelastic surfactant comprising providing a precursor of a breaking system that causes a reduction in viscosity of the fluid after its injection but does not significantly impact its viscosity at surface and during the injection.~~The method of claim 1 comprising providing a wherein said precursor that releases a breaking system by at least one of the following processes: melting, slow dissolution, reaction with a compound present in the fluid or added to the fluid during or after the step of injecting, rupture of an encapsulating coating, and de-adsorption of a breaking agent absorbed into solid particles.~~
3. (Original) The method of claim 2, wherein said breaking system is selected among at least one of the following salts: ammonium persulfate, potassium chloride, sodium hexafluorophosphate and sodium salicylate and wherein said salts are provided under an encapsulated form.
4. (Original) The method of claim 2, wherein said breaking system is a by-product of the reaction of resin-coated proppant.
5. (Canceled)
6. (Canceled)
7. (Currently Amended) A method of treating a subterranean formation, said treatment selected among hydraulic fracturing, acid fracturing and comprising

the step of injecting down a well an aqueous fluid comprising a thickening amount of a viscoelastic surfactant comprising providing a precursor of a breaking system that causes a reduction in viscosity of the fluid after its injection but does not significantly impact its viscosity at surface and during the injection~~The method of claim 6~~, wherein the viscoelastic surfactant is a zwitterionic surfactant and the breaking system is citric acid.

8. (Canceled)
9. (Original) The method of claim 2, wherein the breaking system is released by melting a precursor, said precursor consisting of at least one of the following: a C₁₂ to C₁₈ alcohol, alkyl amines, alkanes, alkenes, aromatics and mixtures thereof.
10. (Original) The method of claim 2, wherein the viscoelastic surfactant is anionic and/or cationic and the breaking system is released by dissolution of at least a surfactant having hydrophilic headgroups oppositely charged to the hydrophilic headgroups of the anionic or cationic surfactants of the viscoelastic surfactant fluid.
11. (Canceled)
12. (Currently Amended) A method of treating a subterranean formation, said treatment selected among hydraulic fracturing, acid fracturing and comprising the step of injecting down a well an aqueous fluid comprising a thickening amount of a viscoelastic surfactant comprising providing a precursor of a breaking system that causes a reduction in viscosity of the fluid after its injection but does not significantly impact its viscosity at surface and during the injection~~The method of claim 11~~, wherein said ~~breaker~~ breaking system is comprises alcohol released from a precursor consisting of a C₁₈ to C₂₀ alkyl sulfate or mixture thereof.
13. (Currently Amended) The method of claim 129, wherein the breaking system is released by slow dissolution and is at least one of the followings: alkyl amines; alkanes, alkenes and aromatics.

14. (Original) The method of claim 13, wherein the breaking system is dodecyl amine.
15. (Currently Amended) The method of claim ~~12~~1, wherein the breaking system or the precursor of the breaking system is provided in the form of nanoparticles.
16. (Canceled)
17. (Canceled)
18. (Canceled)
19. (Previously Amended) The method of claim 20, wherein the breaking system does not substantially reduce high shear viscosity.
20. (Previously Amended) A method of treating a subterranean formation, said treatment selected among hydraulic fracturing, acid fracturing and comprising the step of injecting down a well an aqueous fluid comprising a thickening amount of a viscoelastic surfactant comprising providing a breaking system or a precursor of a breaking system that causes a reduction in viscosity of the fluid after its injection but does not significantly impact its viscosity at surface and during the injection, wherein the breaking system reduces the low shear viscosity and is added to the viscoelastic fluid during the pad or the pre-pad stage.
21. (Canceled)
22. (Previously Amended) A method of treating a subterranean formation by first injecting, down a well, a solid-free aqueous fluid comprising a thickening amount of a cationic viscoelastic surfactant and an alcohol, selected among methanol and ethanol, and then, a proppant-containing aqueous fluid comprising a thickening amount of said cationic viscoelastic surfactant.
23. (Original) The method of claim 22, wherein the cationic viscoelastic surfactant is erucyl methyl bis(2-hydroxyethyl) ammonium chloride.
24. (Canceled)
25. (Canceled)

26. (Canceled)
27. (Canceled)
28. (Canceled)
29. (Previously Amended) A composition for treating a subterranean formation comprising an aqueous fluid comprising a thickening amount of a viscoelastic surfactant and a precursor of a breaking system that causes a reduction in viscosity of the fluid, said precursor of the breaking system comprising resin-coated proppant.
30. (Canceled)
31. (Canceled)
32. (Canceled)
33. (Previously Amended) A composition for treating a subterranean formation comprising an aqueous fluid comprising a thickening amount of a viscoelastic surfactant and a precursor of a breaking system that causes a reduction in viscosity of the fluid, said precursor of the breaking system comprising at least one of the following: a C₁₂ to C₁₈ alcohol, alkyl amines, alkanes, alkenes, aromatics and mixtures thereof.
34. (Previously Amended) A composition for treating a subterranean formation comprising an aqueous fluid comprising a thickening amount of an anionic and/or cationic viscoelastic surfactant and a precursor of a breaking system that causes a reduction in viscosity of the fluid, said precursor of the breaking system being a slow-soluble surfactant having hydrophilic headgroups oppositely charged to the hydrophilic headgroups of the anionic or cationic surfactants of the viscoelastic surfactant fluid.
35. (Previously Amended) A composition for treating a subterranean formation comprising an aqueous fluid comprising a thickening amount of a viscoelastic surfactant and a precursor of a breaking system that causes a reduction in viscosity of the fluid, said precursor of the breaker system being provided in the form of nanoparticles.

36. (Canceled)
37. (Previously Added) A method of treating a subterranean formation by injecting down a well an aqueous fluid comprising a thickening amount of a viscoelastic surfactant comprising providing a precursor of a breaking system that causes a reduction in viscosity of the fluid after its injection but does not significantly impact its viscosity at surface and during the injection, wherein said breaking system is a by-product of the reaction of resin-coated proppant.
38. (Canceled)
39. (Canceled)
40. (Canceled.)
41. (Canceled)
42. (Currently Amended) A method of treating a subterranean formation by injecting down a well an aqueous fluid comprising a thickening amount of a viscoelastic surfactant comprising providing a precursor of a breaking system that causes a reduction in viscosity of the fluid after its injection but does not significantly impact its viscosity at surface and during the injection-, said breaking system released by melting a precursor, said precursor consisting of at least one of the following: a C₁₂ to C₁₈ alcohol, alkyl amines, alkanes, alkenes, aromatics and mixtures thereof.
43. (Previously Added) A method of treating a subterranean formation by injecting down a well an aqueous fluid comprising a thickening amount of a viscoelastic anionic and/or cationic surfactant comprising providing a precursor of a breaking system that causes a reduction in viscosity of the fluid after its injection but does not significantly impact its viscosity at surface and during the injection, said breaking system released by dissolution of at least a surfactant having hydrophilic headgroups oppositely charged to the hydrophilic headgroups of the anionic or cationic surfactants of the viscoelastic surfactant fluid.
44. (Canceled)

45. (Currently Amended) A method of treating a subterranean formation by injecting down a well an aqueous fluid comprising a thickening amount of a viscoelastic surfactant comprising providing a precursor of a breaking system that causes a reduction in viscosity of the fluid after its injection but does not significantly impact its viscosity at surface and during the injection~~The method of claim 44, wherein said breaking systemer is~~comprises alcohol released from a precursor consisting of a C₁₈ to C₂₀ alkyl sulfate or mixture thereof.
46. (Previously Added) The method of claim 42, wherein the breaking system is released by slow dissolution and is at least one of the followings: alkyl amines; alkanes, alkenes and aromatics.
47. (Previously Added) The method of claim 46, wherein the breaking system is dodecyl amine.
48. (Currently Amended) A method of treating a subterranean formation by injecting down a well an aqueous fluid comprising a thickening amount of a viscoelastic surfactant comprising providing a breaking system or a precursor of a breaking system that causes a reduction in viscosity of the fluid after its injection but does not significantly impact its viscosity at surface and during the injection-, ~~said breaking system~~-, wherein the breaker system or the precursor of the breaker system is provided in the form of nanoparticles.
49. (Canceled)
50. (Canceled)